Vanlerberghe, Daren

From: Hughes, Matt [mhughes@WM.COM]
Sent: Tuesday, July 15, 2014 6:06 AM
To: Vanlerberghe, Daren
Cc: Connolly, James; Gosine, Jairaj; Lucier, Eric; Grady, Mark
Subject: Wheelabrator Saugus
Attachments: DOC.PDF; RE: Wheelabrator Saugus COC for Wastewater sampling

Daren:

Additional follow up from your site visit last month. One of your suggestions was that we should add a 3rd point check to the calibration procedure for the sewer discharge pH probe calibration. We have revised the procedure to include a check at pH 7, in addition to 4 and 10. The attached PDF file lays out the revised procedure.

I have also looked into the questions you had on sewer discharge monitoring for oil and grease. There was a question of how the sample are collected, and specific to the 2011 samples, the question of the samples being placed in plastic instead of glass containers. The attached email contains a clarification memo from the sampling contractor. They indicate that amber glass containers are always used, and the sample preserved with HCL. They also clarify that these samples are taken direct to the sample container from the sampling point.

I have also conveyed the request to list each sample container on a separate line on the COC, this would prevent confusion as far as samples and sample containers being used.

If you have any questions, please let me know.

Thanks.

Matt Hughes
Regional Environmental Manager-MA/NH

Wheelabrator Technologies
A Waste Management Company
4 Liberty Lane West
Hampton, NH
Tel 603 929 3328
Cell 603 303 0721

www.wheelabratortechnologies.com
Twitter @WM_WTI

Work Order MP000069	*MP000069*	Page 1

Description	M Calibration Sewer pH Probe		
Equipment	22-201 Instrumentation and Controls		
Wo Type	PM-Master Plan	**Status**	Approved
Supervisor		**Priority**	3
Work Class	PM	**Criticality**	2
Requested Completion		**Assigned To**	

2nd Assigned		**Budgeted Cost**	$0.00
Department	Electrical and Instrumei	**Total Planned**	$0.00
Entered By	Cuttle, Jack	**Cost Center**	Wastewater System
Entered Date	2/24/2003 11:56:04:795	**System**	Instrumentation and Controls
Requestor	Cuttle, Jack	**Budget Class**	Routine R&M
Approver		**Account**	720.521000

Equipment 22-201 Instrumentation and Controls
Serial #

Equip. Specs

Train Common
Environmental ☐
X 0
Safety ☐
Location

Comments Perform a two point calibration fo the sewer water PH probe and perform a 3rd point check.

Resources

Resource	Occurrence	Workers	Planned Hours	Actual Hours	Remaining Hours
E&I	1	1	1	0	1
		Total Hours	1	0	1

Documents

Work Order

Document Id	Document Type	Description
7/11/2014-548	Adobe Acrobat	Cal Sheet pH

Storage Location O:\Record Storage\Saugus\E&I Calibration

Work Order Instructions

Department: Electrical Maintenance
Safety Procedures: LOTO and Safe Work Procedures

Sewer PH 2-point Calibration and 3rd point check

Procedure:

1. Notify control room to place sewer Ph in calibration mode (Lamella screen graphic 92)

2. Confirm that the pH input has a slope between 51 and 62 mV/pH. If outside this range, probe must be changed

3. Pull pH probe, wipe probe down with a clean rag(If sensor is left dry for a few hours, it will be damaged)

4. Submerge probe in safe acid for atleast one minute, then purge probe with water

5. Fill 3 cups, one with pH 4, one with pH 7 and the other with pH 10

6. CALIBRATION SET UP: Initializing Calibration-
6.1 Press EXAM/CANCEL key to place display in "examination" mode and to indicate pH "cal value"
6.2 Press Next key until display indicates "Buffer Cal"
6.3 Press <--- key to make display indicate "2pt."
6.4 Press ENTER key until display indicates "LO BUFFER VALUE"
6.5 Press NEXT key once to make display indicate "HI BUFFER VALUE"
6.6 Use arrow keys to make display 4.00 if value is not already 4.00, then press ENTER
6.7 Press NEXT key once to make display indicate "hi buffer value"
6.8 Use arrow key to mkae display 10.00 if value is not already 10.00, then press ENTER
6.9 Press EXAM/CANCEL key to return display to pH measureing mode

7. CALIBRATION: Two-point Calibration with 3rd point check-
7.1 Place clean sensor in the pH 4 value buffer
7.2 Press BEGIN CAL key
7.3 When the pH and the deg F indicators are both on (not flashing), press END CAL button
7.4 Remove sensor from the pH 4 value buffer. Rinse sensor in clean water and place in the 10 pH value buffer
7.5 Press BEGIN CAL key
7.6 When the pH and deg F indicators are both on (not flashing), press END CAL button.
7.7 Remove sensor from the pH 10 value buffer. Rinse sensor in clean water.
7.8 Place the sensor in the pH 7 value buffer and record the result
8. When calibration is complete notify control room to remove sewer Ph from calibration mode (Lamella screen graphic 92)

Vanlerberghe, Daren

From: Kenneth Boivin [kenneth.boivin@gza.com]
Sent: Monday, July 14, 2014 3:22 PM
To: Hughes, Matt
Cc: Ronald Breton
Subject: RE: Wheelabrator Saugus COC for Wastewater sampling
Attachments: Wheelabrator071414.pdf

Hi Matt:

Attached is the letter requested from ESS documenting that the containers used for oil and grease sampling in 2011 were glass and not plastic.

I apologize for the delay in getting this to you. I had hoped to have it available last week.

Please let me know if you need additional information.

Regards,

Ken

Kenneth Boivin, CHMM
Associate Principal
GZA GeoEnvironmental, Inc.
5 Commerce Park North, Suite 201
Bedford, New Hampshire 03110
p: 603.232.8719
f: 603.624.9463
c: 603.566.9784

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-----Original Message-----
From: Hughes, Matt [mailto:mhughes@WM.COM]
Sent: Monday, July 14, 2014 2:18 PM
To: Kenneth Boivin
Cc: Ronald Breton
Subject: RE: Wheelabrator Saugus COC for Wastewater sampling

OK. Thanks.

-----Original Message-----
From: Kenneth Boivin [mailto:kenneth.boivin@gza.com]
Sent: Monday, July 14, 2014 14:11
To: Hughes, Matt
Cc: Ronald Breton
Subject: RE: Wheelabrator Saugus COC for Wastewater sampling

Hi Matt:

ESS will have a memo out to us tomorrow. We had expected it from them last week.

Thanks,

Ken

Kenneth Boivin, CHMM
Associate Principal
GZA GeoEnvironmental, Inc.
5 Commerce Park North, Suite 201
Bedford, New Hampshire 03110
p: 603.232.8719
f: 603.624.9463
c: 603.566.9784

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-----Original Message-----
From: Hughes, Matt [mailto:mhughes@WM.COM]
Sent: Monday, July 14, 2014 1:31 PM
To: Kenneth Boivin
Cc: Ronald Breton
Subject: RE: Wheelabrator Saugus COC for Wastewater sampling

Ken:

Any update on my request from last week?

Thanks.

-----Original Message-----
From: Hughes, Matt
Sent: Wednesday, July 09, 2014 9:09
To: 'Kenneth Boivin'
Cc: Ronald Breton
Subject: RE: Wheelabrator Saugus COC for Wastewater sampling

How about a memo from ESS referencing the 2011 testing that corrects and the error on the COCs?.

-----Original Message-----
From: Kenneth Boivin [mailto:kenneth.boivin@gza.com]
Sent: Tuesday, July 08, 2014 18:02
To: Hughes, Matt
Cc: Ronald Breton
Subject: RE: Wheelabrator Saugus COC for Wastewater sampling

Hi Matt:

The individual who did the sampling has confirmed that the 2011 FOG samples were taken directly in glass containers as per the standard practice. 'P' was listed on the COC in error. Do you need a corrected document or some other documentation from ESS?

Thanks,

Ken

Kenneth Boivin, CHMM
Associate Principal
GZA GeoEnvironmental, Inc.
380 Harvey Road
Manchester, New Hampshire 03103
p: 603.232.8719
f: 603.624.9463
c: 603.566.9784

Exciting News! GZA's Manchester office will be moving on Friday July 11, 2014 to our new address at 5 Commerce Park North, Bedford, New Hampshire 03110. All other contact information will remain the same.

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Follow us on:

-----Original Message-----
From: Hughes, Matt [mailto:mhughes@WM.COM]
Sent: Tuesday, July 01, 2014 9:11 AM
To: Kenneth Boivin; Ronald Breton
Subject: Wheelabrator Saugus COC for Wastewater sampling

I will call to discuss, but to summarize. We just went through a Clean Water Act inspection with EPA that started late last week and concluded yesterday. One of their suggestions is to break out the different test parameters when we are using different containers and preservations methods. See the sample I circled in the attached. This one should be two lines, one for the field pH and temp in the 125 ml plastic container. The other in the 1 liter glass for O&G.

The other item for O&G is that we need to have assurance that ESS is taking the grab for O&G direct to the glass container. They cannot be collecting a sample meant for O&G into plastic, then transferring to glass. Not sure if the best way to memorialize this is in the sampling procedure, or include a statement on the COC.

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For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at www.gza.com<http://www.gza.com/>.

_____

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_____

For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at www.gza.com<http://www.gza.com/>.

July 14, 2014

Kenneth Boivin
GZA GeoEnvironmental, Inc
380 Harvey Road
Manchester, New Hampshire 03103

RE: Wheelabrator Oil & Grease

Dear Kenneth Boivin:

We have reviewed the reports you had attached and researched The Oil & Grease samples on October 18 and October 20, 2011. The original chains receiving the samples into the Hopkinton Laboratory stated that the Oil & Grease samples had been sampled in plastic bottles. This is not the standard practice of the field samplers. All Oil & Grease samples are taken in one liter amber bottles and preserved with hydrochloric acid (HCl).

When looking further into each report, there is a second chain sending the samples to ESS Laboratory in Cranston, RI. These chains are attached and state that Oil & Grease samples were sent to ESS Laboratory in glass bottles preserved with HCl.

The final check is on the cooler receipt checklist at ESS Laboratory. Samples were received in one liter glass bottles, preserved with HCl, and bar-coded as such. See attached form.

We hope this information will help you resolve the issue of the bottles. If you have any further questions, please do not hesitate to contact me.

Sincerely

Laurel Stoddard
Laboratory Director

ESS LABS

1110282

W.O. # 1110-00097 *(for lab use only)*

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	ANALYSIS REQUIRED: ☐ pH	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260- 8010 List	EPA 8021- Full List	EPA 8021- 8010 List (Chlor.)	EPA 8021- 8020 List (BTEX)	EPA 624 DW VOCs	EPA 624 WW VOCs/MWRA	EPA ☐ 601 ☐ 602 WW VOCs	EPA 8270 SVOCs	EPA 8270 ☐ PAH ☐ A ☐ BN	EPA 625 WW SVOCs	EPA 8082-PCBs	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ PPM-13 ☐ R-8	MCP 14 Metals (MA)	Metals (List Below)	TCLP - Specify Below	SPLP - Specify Below	EPA 300 ☐ Cl ☐ NO3 ☐ SO4	FOG-1664	TSS	BOD			Total No. of Cont.	Note #
01 Outfall 001-10-17-11-Grab-1	10/17/11 @ 0830	WW																										X					2	
PRESERVATIVE (Cl-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *																												Cl	-	-				
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*																												G	P	P				

RELINQUISHED BY: DATE/TIME: RECEIVED BY:
10/18/11 1100 — 10/18/11 15:45

RELINQUISHED BY: DATE/TIME: RECEIVED BY:
10/18/11 17:30

RELINQUISHED BY: DATE/TIME: RECEIVED BY:

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

Report Method Blank and Laboratory Control Sample Results

Project Manager: Michelle Mirenda

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
508-435-9244
FAX 508-435-9912

ESS Labs

LAB USE:
TURNAROUND TIME: Standard / Rush ___ days Approved by: LS
TEMP. OF COOLER: 3.2°C
Temp Blank
Cooler Air

GZA FILE NO: 04.0029242.00 TASK NO: P.O. NO.

PROJECT: Fall Semi-Annual Monitoring

LOCATION: Saugus, MA

COLLECTOR(S): JJ SHEET 1 OF 1

C:\Users\lgalindo\Desktop\RIAL COCs\NH Semi-Ann.RIAL COC.xlsx

Sample and Cooler Receipt Checklist

Client: GZA GeoEnvironmental, Inc.
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11100282
Date Project Due: 10/25/11
Days For Project: 4 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	N/A
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: **3.2**		16. Are ESS labels on correct containers?	Yes No
Iced With: **Icepacks**		17. Were samples received intact?	Yes No
6. Was COC included with samples?	Yes	ESS Sample IDs: _____	
7. Was COC signed and dated by client?	Yes	Sub Lab: _____	
8. Does the COC match the sample	Yes	Analysis: _____	
9. Is COC complete and correct?	Yes	TAT: _____	

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?:_____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	1 L Glass	2	HCL

Completed By: MJK Date/Time: 10/19/11

Reviewed By: _____ Date/Time: 10/19/11

ESS LABS 1110280

W.O. # 1110-00099 *(for lab use only)*

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	Total No. of Cont.	Note #
01 Outfall 001-10-18-11-Grab-2	10/18/11 @ 0830	WW	2	
02 Outfall 001-10-17-11-Comp-1	10/18/11 @ 0830	WW	2	

ANALYSIS REQUIRED

Sample I.D.	☐ pH	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260- 8010 List	EPA 8021- Full List	EPA 8021- 8010 List (Chlor.)	EPA 8021- 8020 List (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs/MWRA	☐ 601 ☐ 602 WW VOCs	EPA 8270 SVOCs	EPA 8270 ☐ PAH ☐ A ☐ BN	EPA 625 WW SVOCs	EPA 8082-PCBs	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ PPM-13 ☐ R-8	MCP 14 Metals (MA)	Metals (List Below)	TCLP - Specify Below	SPLP - Specify Below	EPA 300 ☐ Cl ☐ NO3 ☐ SO4	FOG-1664	TSS	BOD			Total No. of Cont.	Note #
01 Outfall 001-10-18-11-Grab-2																										X					2	
02 Outfall 001-10-17-11-Comp-1																											X	X			2	
PRESERVATIVE (CI-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *																										CI	-	-				
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*																										G	P	P				

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
	10/18/11 1430	10/18/11 1534
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
	10/18/11 17:30	1730
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

Report Method Blank and Laboratory Control Sample Results

Project Manager: Michelle Mirenda

GZA GEOENVIRONMENTAL, INC. ESS

106 South Street
Hopkinton, MA 01748
508-435-9244
FAX 508-435-9912

LAB USE:
TURNAROUND TIME: Standard Rush 4 days Approved by: LS TEMP. OF COOLER 3.2°C Temp Blank Cooler Air

GZA FILE NO: 04.0029242.00 TASK NO: P.O. NO.

PROJECT Fall Semi-Annual Monitoring

LOCATION Saugus, MA

COLLECTOR(S) JJ SHEET 1 OF 1

C:\Users\lgalindo\Desktop\RIAL COCs\NH Semi-Ann RIAL COC.xlsx

Sample and Cooler Receipt Checklist

Client: GZA GeoEnvironmental, Inc.
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11100280
Date Project Due: 10/25/11
Days For Project: 4 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	N/A
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: 3.2		16. Are ESS labels on correct containers?	Yes No
Iced With: Icepacks		17. Were samples received intact?	Yes No
6. Was COC included with samples?	Yes	ESS Sample IDs: _____	
7. Was COC signed and dated by client?	Yes	Sub Lab: _____	
8. Does the COC match the sample	Yes	Analysis: _____	
9. Is COC complete and correct?	Yes	TAT: _____	

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	1 L Glass	2	HCL
2	Yes	1 L Plastic	2	NP

Completed By: MK Date/Time: 10/19/11

Reviewed By: _____ Date/Time: 10/19/11

ESS LABS 1110346

W.O. # 1110-00109 *(for lab use only)*

CHAIN-OF-CUSTODY RECORD

	Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	Total No. of Cont.	Note #
01	Outfall 001-10-19-11-Grab-3	10/19/11 @ 0830	WW	2	
02	Outfall 001-10-18-11-Comp-2	10/19/11 @ 0830	WW	2	
03	Outfall 001-10-19-11-Grab-3A	10/19/11 @ 0915	WW	2	

ANALYSIS REQUIRED

	pH	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260- 8010 List	EPA 8021- Full List	EPA 8021- 8010 List (Chlor.)	EPA 8021- 8020 List (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs/MWRA	601 602 WW VOCs	EPA 8270 SVOCs	EPA 8270 PAH A BN	EPA 625 WW SVOCs	EPA 8082-PCBs	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals PPM-13 R-8	MCP 14 Metals (MA)	Metals (List Below)	TCLP - Specify Below	SPLP - Specify Below	EPA 300 Cl NO3 SO4	FOG-1664	TSS	BOD		
01																										X			
02																											X	X	
03																										X			
PRESERVATIVE (Cl-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *																										Cl	-	-	
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*																										G	P	P	

RELINQUISHED BY: [signature] DATE/TIME 10/20/11 1400 RECEIVED BY: [signature]

RELINQUISHED BY: [signature] DATE/TIME 10/20/11 16:50 RECEIVED BY: [signature]

RELINQUISHED BY: DATE/TIME RECEIVED BY:

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

Cooler Temp: 3.3°C

Report Method Blank and Laboratory Control Sample Results

Note BOD Hold time

Project Manager: Michelle Miranda

~~GZA GeoEnvironmental, Inc.~~ ESS Labs

106 South Street
Hopkinton, MA 01748
508-435-9244
FAX 508-435-9912

LAB USE:

TURNAROUND TIME: Standard Rush 4 days Approved by: LS TEMP. OF COOLER °C Temp Blank Cooler Air

GZA FILE NO: 04.0029242.00 TASK NO: P.O. NO. 2

PROJECT Fall Semi-Annual Monitoring

LOCATION Saugus, MA

COLLECTOR(S) JJ SHEET 1 OF 1

C:\Users\galindo\Desktop\ESS COCs\Fall Semi-Ann ESS COC.xlsx

Sample and Cooler Receipt Checklist

Client: GZA GeoEnvironmental, Inc.
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11100346
Date Project Due: 10/27/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	N/A
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: **3.3**		16. Are ESS labels on correct containers?	Yes|No
Iced With: **Icepacks**		17. Were samples received intact?	Yes|No
6. Was COC included with samples?	Yes	ESS Sample IDs:	
7. Was COC signed and dated by client?	Yes	Sub Lab:	
8. Does the COC match the sample	Yes	Analysis:	
9. Is COC complete and correct?	Yes	TAT:	

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?:_____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	1 L Glass	2	HCL
2	Yes	1 L Plastic	2	NP
3	Yes	1 L Glass	2	HCL

Completed By: MK Date/Time: 10/20/11

Reviewed By: [signature] Date/Time: 10/20/11

ESS LABS 1110369

W.O. # 1110-00124 (for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	ANALYSIS REQUIRED: ☐ pH	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260- 8010 List	EPA 8021- Full List	EPA 8021- 8010 List (Chlor.)	EPA 8021- 8020 List (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs/MWRA	☐ 601 ☐ 602 WW VOCs	EPA 8270 SVOCs	EPA 8270 ☐ PAH ☐ A ☐ BN	EPA 625 WW SVOCs	EPA 8082-PCBs	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ PPM-13 ☐ R-8	MCP 14 Metals (MA)	Metals (List Below)	TCLP - Specify Below	SPLP - Specify Below	EPA 300 ☐ Cl ☐ NO3 ☐ SO4	FOG-1664	TSS	BOD			Total No. of Cont.	Note #
Outfall 001-10-20-11-Grab-4	10/20/11 @ 0915	WW																									X						2	
Outfall 001-10-19-11-Comp-3	10/20/11 @ 0915	WW																										X	X				2	
PRESERVATIVE (Cl-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *																											Cl	-	-					
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*																											G	P	P					

RELINQUISHED BY: [signature] DATE/TIME 10/21/11 16/6 RECEIVED BY: Ralph Banks

RELINQUISHED BY: Ralph Banks DATE/TIME 10/21/11 18:00 RECEIVED BY: Manual Rivera

RELINQUISHED BY: DATE/TIME RECEIVED BY:

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

Cooler Temp 5.1°C

Report Method Blank and Laboratory Control Sample Results

Note BOD Hold Time

Project Manager: Michelle Mirenda

GZA GeoEnvironmental, Inc.

106 South Street
Hopkinton, MA 01748
508-435-9244
FAX 508-435-9912

LAB USE:

TURNAROUND TIME: ~~Standard~~ ~~Rush~~ 4 days Approved by: LS

Temp Blank

TEMP. OF COOLER °C Cooler Air

GZA FILE NO: 04.0029242.00 TASK NO: P.O. NO.

PROJECT Fall Semi-Annual Monitoring

LOCATION Saugus, MA

COLLECTOR(S) JJ SHEET 1 OF 1

C:\Users\galindo\Desktop\ESS COCs\Fall Semi-Ann.ESS.COC.xlsx

Sample and Cooler Receipt Checklist

Client: GZA GeoEnvironmental, Inc.
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11100369
Date Project Due: 10/28/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	N/A
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: **5.1**		16. Are ESS labels on correct containers?	Yes No
Iced With: **Icepacks**		17. Were samples received intact?	Yes No
6. Was COC included with samples?	Yes	ESS Sample IDs:	
7. Was COC signed and dated by client?	Yes	Sub Lab:	
8. Does the COC match the sample	Yes	Analysis:	
9. Is COC complete and correct?	Yes	TAT:	

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?:_____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	~~1 L Plastic~~	~~2~~	~~NP~~
2	Yes	1 L Glass	2	H2SO4

Completed By: MK Date/Time: 10/21/11

Reviewed By: _____ Date/Time: 10/21/11

RIAL

W.O. # 1104-00156 (for lab use only)

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CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix A=Air S=Soil GW=Ground W. SW=Surface W. WW=Waste W. DW=Drinking W. P=Product Other (specify)	☐ pH	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260- 8010 List	EPA 8021- Full List	EPA 8021- 8010 List (Chlor.)	EPA 8021- 8020 List (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs/MWRA	☐ 601 ☐ 602 WW VOCs	EPA 8270 SVOCs	EPA 8270 ☐ PAH ☐ A ☐ BN	EPA 625 WW SVOCs	EPA 8082-PCBs	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ PPM-13 ☐ R-8	MCP 14 Metals (MA)	Metals (List Below)	TCLP - Specify Below	SPLP - Specify Below	EPA 300 ☐ Cl ☐ NO3 ☐ SO4	FOG-1664	TSS	BOD			Total No. of Cont.	Note #
Outfall 001 Grab	4/22/11 @ 0830	WW																										X					2	
Outfall 001 Composite	4/22/11 @ 0830	WW																											X	X			2	
PRESERVATIVE (Cl-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *																												Cl	-	-				
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*																												G	P	P				

4/RF

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
[signature]	4/22/11 1520	[signature] 4-22-11 1530
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
[signature]	4-22-11	153. [signature]
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

Report Method Blank and Laboratory Control Sample Results

1104-07529

Project Manager: Michelle Mirenda

GZA GEOENVIRONMENTAL, INC.

106 South Street
Hopkinton, MA 01748
508-435-9244
FAX 508-435-9912

TURNAROUND TIME: Standard ~~Rush~~ 4 days Approved by: A. Ford

LAB USE: TEMP. OF COOLER 1.6 °C Temp Blank Cooler Air

GZA FILE NO: 04.0029242.00 TASK NO: P.O. NO. 8-34378

PROJECT: Semi-Annual Monitoring

LOCATION: Saugus, MA

COLLECTOR(S): JJ SHEET 1 OF 1

p/n 85W

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8

RIAL

W.O. # 1104-00150
(for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix A=Air S=Soil GW=Ground W. SW=Surface W. WW=Waste W. DW=Drinking W. P=Product Other (specify)	☐ pH	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260- 8010 List	EPA 8021- Full List	EPA 8021- 8010 List (Chlor.)	EPA 8021- 8020 List (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs/MWRA	☐ 601 ☐ 602 WW VOCs	EPA 8270 SVOCs	EPA 8270 ☐ PAH ☐ A ☐ BN	EPA 625 WW SVOCs	EPA 8082-PCBs	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ PPM-13 ☐ R-8	MCP 14 Metals (MA)	Metals (List Below)	TCLP - Specify Below	SPLP - Specify Below	EPA 300 ☐ Cl ☐ NO3 ☐ SO4	FOG-1664	TSS	BOD			Total No. of Cont.	Note #
Outfall 001 Grab	4/21/11 @ 0830	WW																										X					2	
Outfall 001 Composite	4/21/11 @ 0830	WW																											X	X			2	
PRESERVATIVE (Cl-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *																												Cl	-	-				
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*																												G	P	P				

ANALYSIS REQUIRED

ICF

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
[signature]	4/22/11 1500	[signature] 4-22-11 1530
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
[signature]	4/22/11 1130	[signature]
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

Report Method Blank and Laboratory Control Sample Results

1104-07530

Project Manager: Michelle Mirenda

GZA GEOENVIRONMENTAL, INC.

106 South Street
Hopkinton, MA 01748
508-435-9244
FAX 508-435-9912

TURNAROUND TIME: Standard ~~Rush~~ 4 days Approved by: A. Ford

LAB USE: TEMP. OF COOLER 1.6 °C Temp Blank / Cooler Air

GZA FILE NO: 04.0029242.00 TASK NO: P.O. NO. S-34374

PROJECT: Semi-Annual Monitoring

LOCATION: Saugus, MA

COLLECTOR(S): JJ SHEET 1 OF 1

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RIAL

W.O. # 1104-00138 *(for lab use only)*

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W, WW=Waste W., DW=Drinking W., P=Product, Other (specify))	ANALYSIS REQUIRED	Total No. of Cont.	Note #
Outfall 001 Grab	4/20/11 @ 0830	WW	FOG-1664	2	
Outfall 001 Composite	4/20/11 @ 0830	WW	TSS, BOD	2	

ANALYSIS REQUIRED: ☐ pH; GC Methane, Ethane, Ethene; EPA 8260; EPA 8260- 8010 List; EPA 8021- Full List; EPA 8021- 8010 List (Chlor.); EPA 8021- 8020 List (BTEX); EPA 524.2 DW VOCs; EPA 624 WW VOCs/MWRA; ☐ 601 ☐ 602 WW VOCs; EPA 8270 SVOCs; EPA 8270 ☐ PAH ☐ A ☐ BN; EPA 625 WW SVOCs; EPA 8082-PCBs; EPA 8081-Pest; TPH-GC (Mod. 8100); TPH-GC w/FING.; EPH (MA DEP); VPH (MA DEP); Metals ☐ PPM-13 ☐ R-8; MCP 14 Metals (MA); Metals (List Below); TCLP - Specify Below; SPLP - Specify Below; EPA 300 ☐ Cl ☐ NO3 ☐ SO4; FOG-1664; TSS; BOD

PRESERVATIVE (Cl-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) * — CL

CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)* — G P

RELINQUISHED BY: [signature] DATE/TIME 4/21/11 1515 RECEIVED BY: [signature] 4-21-11 1605

RELINQUISHED BY: [signature] DATE/TIME 4-21-11 1750 RECEIVED BY: [signature]

RELINQUISHED BY: DATE/TIME RECEIVED BY:

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

Report Method Blank and Laboratory Control Sample Results

1104 - 0741R

Project Manager: **Michelle Mirenda**

GZA GeoEnvironmental, Inc.

106 South Street
Hopkinton, MA 01748
508-435-9244
FAX 508-435-9912

LAB USE:

TURNAROUND TIME: ~~Standard~~ ~~Rush~~ *4 days* Approved by: **A. Ford**

TEMP. OF COOLER 6.0 I&C °C

Temp Blank

Cooler Air

GZA FILE NO: **04.0029242.00** TASK NO: P.O. NO. 8-34869

PROJECT **Semi-Annual Monitoring**

LOCATION **Saugus, MA**

COLLECTOR(S) **JJ** SHEET **1** OF **1**

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RIAL

W.O. # 1104-00120
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CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	ANALYSIS REQUIRED: ☐ pH	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260- 8010 List	EPA 8021- Full List	EPA 8021- 8010 List (Chlor.)	EPA 8021- 8020 List (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs/MWRA	☐ 601 ☐ 602 WW VOCs	EPA 8270 SVOCs	EPA 8270 ☐ PAH ☐ A ☐ BN	EPA 625 WW SVOCs	EPA 8082-PCBs	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ PPM-13 ☐ R-8	MCP 14 Metals (MA)	Metals (List Below)	TCLP - Specify Below	SPLP - Specify Below	EPA 300 ☐ Cl ☐ NO3 ☐ SO4	FOG - 1664					Total No. of Cont.	Note #
Outfall 001 Grab	4/19/11 @ 0915	WW																										X					2	1
PRESERVATIVE (Cl-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *																												CL						
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*																												G						

RELINQUISHED BY: DATE/TIME 4/20/11 1021 RECEIVED BY: 4.20.11 1600

RELINQUISHED BY: DATE/TIME RECEIVED BY:

4.20.11 1600

RELINQUISHED BY: DATE/TIME RECEIVED BY:

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

Report Method Blank and Laboratory Control Sample Results

1104-00336

Project Manager: Michelle Mirenda

GZA GeoEnvironmental, Inc.

106 South Street
Hopkinton, MA 01748
508-435-9244
FAX 508-435-9912

LAB USE:
TURNAROUND TIME: ~~Standard~~ Rush ~~4 days~~ Approved by: ~~A. Ford~~ TEMP. OF COOLER 3.8 ICE °C Temp Blank ____ Cooler Air ____

GZA FILE NO: 04.0029242.00 TASK NO: ____ P.O. NO. 9-34361

PROJECT Semi-Annual Monitoring

LOCATION 100 Salem Turnpike, Saugaus, MA

COLLECTOR(S) JJ SHEET 1 OF 1

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